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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,926	07/25/2007	Keisuke Kajihara	14434.110USWO	3779

52835 7590 08/04/2009

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EXAMINER	
GRAY, JILL M	

ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
08/04/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/590,926	KAJIHARA ET AL.	
	Examiner	Art Unit	
	Jill Gray	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/21/2009;7/20/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 21, 2009 has been entered.

2. Pursuant to the entry of the amendment of May 21, 2009, the status of the claims is as follows: Claims 1-10 are pending. Claims 1 and 4 are amended. Claims 1-8 currently are under prosecution.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamura et al., 5,523,154 (Okamura) in view of Girgis, 4,476,191, for reasons of record.

Okamura teaches:

Abstract, teaches a treating agent comprising (A) a rubber latex which further comprises a nitrile group, and additionally possesses an iodine value of 120 or less. (B) a second rubber latex, and (C) resorcinol/formaldehyde condensate. The relative amounts by

weight of (A), (B), and (C) are 15 to 80 percent, 5 to 70 percent, and 2 to 15 percent respectively. The passage additionally teaches a glass fiber treated with the treating agent and a rubber article comprising the treated glass fiber.

Column 3, lines 46-59, teach the second rubber latex possesses an iodine value of 200 or more.

Column 5, lines 4-15, teach coating a glass fiber, embedding the glass fiber in unvulcanized rubber, and vulcanizing the combination.

Column 5, lines 27-43, teach the primary coating layer can have a secondary coating layer deposited thereon.

Column 8, line 62 through column 9, line 14, example 2, teaches a treating agent composition comprising a nitrile containing latex, a water-soluble resorcinol/formaldehyde condensate, a vinylpyridine/butadiene/styrene terpolymer latex, and a chlorosulfonated polyethylene latex.

Column 7, lines 48-52, example 1, teach the treating agent is applied to the glass fibers in the amount of 20 weight percent.

Okamura does not teach:

Okamura provides as a suitable example of resorcinol-formaldehyde condensation a reaction in alkaline medium. Okamura is silent with regard to the formation of the resorcinol-formaldehyde condensation product in an acidic medium (novolac condensation). Okamura is also silent with regard to phenolic products other than resorcinol-formaldehyde condensates.

Girgus teaches:

Abstract, teaches a two step method for forming an adhesive system. The first step provides the formation of an aldehyde resin mixture and the second step mixes the aldehyde resin mixture with one or more elastomeric materials and additives. The system is used to coat filamentary materials for use as reinforcement materials in rubber.

Column 1, line 67 through column 2, line 4, teaches that it is known in the prior art to form a resorcinol-formaldehyde product in an alkaline medium.

Column 4, lines 45-52, teach the pH of the first step of the process is preferably between about 3.5 to 5.5. This is equated with a Novolac type reaction. Girgus teaches in the background, column 2, lines 46-51, the first step of the reaction under acidic conditions. The second step of the process is under alkaline conditions.

Column 6, line 22-59, teach a mole ratio of formaldehyde to resorcinol in the range of about 0.8 to about 1.5. The passage also teaches pH range of about 3.5 to 5.5 prevents undesirable cross-linking.

Column 5, lines 41-60, teach the two step process results in toughness while maintaining flexibility.

Column 5, line 61 through column 6, line 32, teaches that mixtures of phenols and mixtures of aldehydes can be used to form the condensation product(s). Phenolic compounds having one OH group such as phenol are taught.

Column 7, line 64 through column 8, line 14, teaches the phenolic aldehyde resin can be suitably used with various rubbers including vinylpyridine-styrene-butadiene.

Column 8, line 64 through column 9, line 1, teaches the coating of various types of fibers with the composition. Glass fibers are a preferred material.

It would have been obvious to one of ordinary skill in the art to form a phenolic-aldehyde condensation product as taught by Girgus and use this reaction product in the composition of Okamura in order to provide a composition which would improve the toughness while maintaining the flexibility of the material of Okamura, such as for subsequent use in the flexible rubber belt of Okamura.

Response to Arguments

5. Applicant's arguments filed May 21, 2009 have been fully considered but they are not persuasive.

Applicants argue that the water-soluble phenolic aldehyde resin of Girgis at best corresponds only to the water-soluble condensation product of resorcinol-formaldehyde required by claim 1, and thus, Girgis fails to disclose a composition that includes two types of resin, i.e. resin made of resorcinol and formaldehyde and phenol resin as claim 1 requires.

In this regard, applicants arguments are directed solely to the Girgis reference when the present rejection is based upon the combination of Okamura and Girgis. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). It is the combination of teachings in the prior art that the examiner is relying upon. The skilled artisan would have been reasonably motivated to modify the composition of Okamura by including a phenol resin in order to provide a composition which would improve the

toughness while maintaining the flexibility of the material of Okamura, such as for subsequent use in the flexible belt of Okamura.

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill Gray whose telephone number is 571-272-1524. The examiner can normally be reached on M-Th and alternate Fridays 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jill Gray/
Primary Examiner
Art Unit 1794

jmg